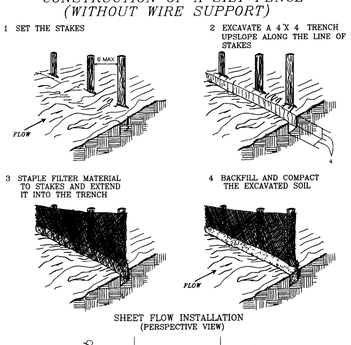
CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



SOURCE Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control VA DSWC Sherwood and Wyatt

PLATE 3 05-2 SOURCE VA DSWC

ROCK CHECK DAM

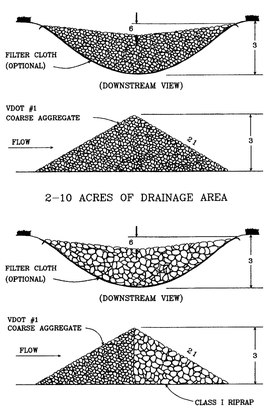
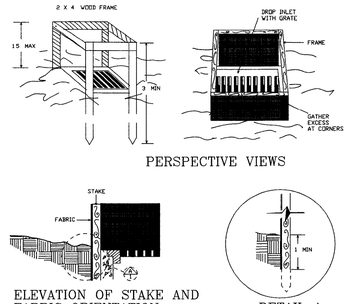


PLATE 3 20-1

SILT FENCE DROP INLET PROTECTION



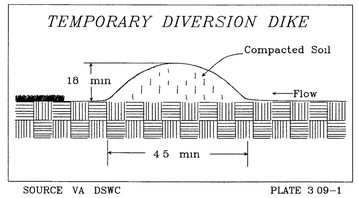
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 CFS) ARE TYPICAL THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREET OR HIGHWAY MEDIANS

SOURCE N C Erosion and Sediment Control Planning and Design Manual 1988

PLATE 3 07-1

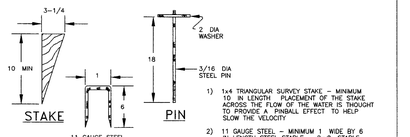
TEMPORARY DIVERSION DIKE



SOURCE VA DSWC

PLATE 3 09-1

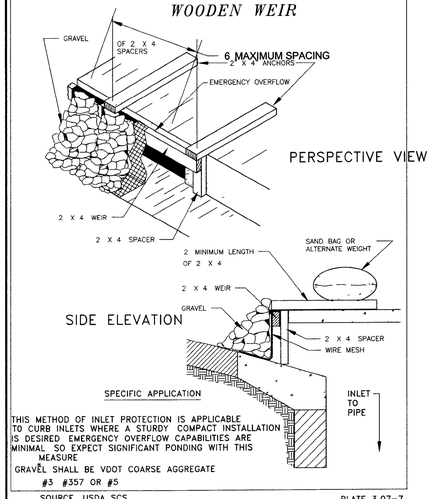
STAKES, STAPLES, & PINS FOR INSTALLATION OF TREATMENT - 2 SOIL STABILIZATION MATTING



SOURCE PRODUCT LITERATURE FROM GREENSTREAK INC

PLATE 3 36-3

CURB INLET PROTECTION WITH 2-INCH X 4-INCH WOODEN WEIR



SPECIFIC APPLICATION

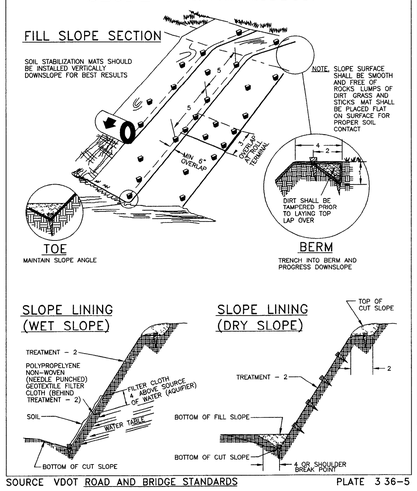
THIS METHOD OF INLET PROTECTION IS APPLICABLE TO CURB INLETS WHERE A STURDY COMPACT INSTALLATION IS DESIRED EMERGENCY OVERFLOW CAPABILITIES ARE MINIMAL SO EXPECT SIGNIFICANT PONDING WITH THIS MEASURE

GRAVEL SHALL BE VDOT COARSE AGGREGATE #3 #357 OR #5

SOURCE USDA SCS

PLATE 3 07-7

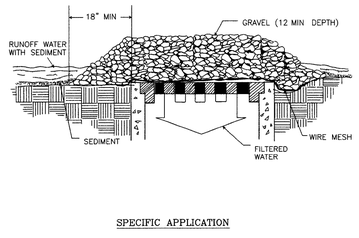
TYPICAL TREATMENT - 2 SOIL STABILIZATION MATTING SLOPE INSTALLATION



SOURCE VDOT ROAD AND BRIDGE STANDARDS

PLATE 3 36-5

GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER



SPECIFIC APPLICATION

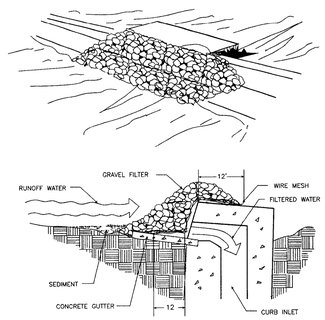
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS

* GRAVEL SHALL BE VDOT #3 #357 OR #5 COARSE AGGREGATE

SOURCE VA DSWC

PLATE 3 07-2

GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION

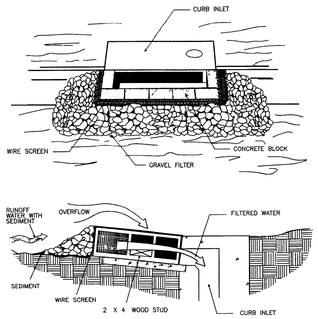
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS

GRAVEL SHALL BE VDOT #3 #357 OR 5 COARSE AGGREGATE

SOURCE VA DSWC

PLATE 3 07-6

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER



SPECIAL APPLICATION

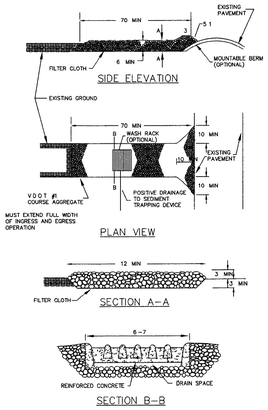
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE

GRAVEL SHALL BE VDOT #3 #357 OR #5 COARSE AGGREGATE

SOURCE VA DSWC

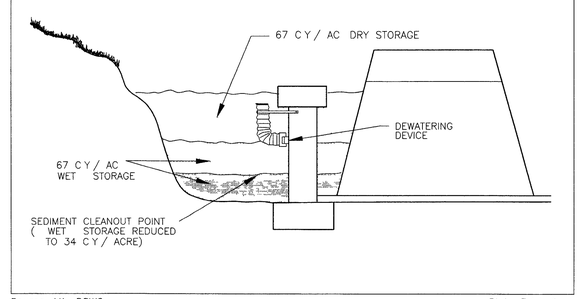
PLATE 3 07-8

STONE CONSTRUCTION ENTRANCE



NOT TO SCALE

SEDIMENT TRAP WITH A PIPED OUTLET



Source VA DSWC

Plate 3 14-1

REGISTERED LAND DISTURBER

William D. Hume, PE# 0037880

NARRATIVE

PROJECT DESCRIPTION

The purpose of this project is the completion of a site plan for a 8 631 sq ft Volunteer Fire Department building 3 614 sq ft addition to the existing building a 712 sq ft patio associated parking and utility infrastructure The site is located west of Middleburg Virginia The total site area is 2 4868 Acres A total of 1 86 acres will be disturbed during construction

EXISTING SITE CONDITIONS

This site is steeply sloping terrain which ultimately drains to the northwest towards an unnamed tributary of Goose Creek The northern portion of the site drains into a small stream which runs through the northern portion of the site The southern portion of the site drains to an existing 54 RCP crossing under Windy Hill Lane

ADJACENT PROPERTY

The site is bounded by single family residences to the north and east It is also bounded by an elder care facility to the west To the south is US Route 50

OFF SITE AREAS

Topsoil must be stripped from graded area and stockpiled for use in final grading and permanent stabilization Stockpiles will be kept on site No off-site areas are being considered for stock piling of material If it is determined that an off site area is necessary the contractor shall submit a supplementary E&S plan to the owner of the off-site stockpile area which would have to be approved by the plan approving authority before any off site activity commences

SOILS

Please see sheet 12 for soils information

CRITICAL EROSION AREAS

Steep slopes exist on this site Special care should be taken to ensure that these slopes are properly stabilized

EROSION AND SEDIMENT CONTROL MEASURES

Unless otherwise indicated all vegetative and structural erosion and sediment control practices shall be constructed and maintained according to minimum standards and specifications of the handbook The minimum standards of the VESCH shall be adhered to unless otherwise waived or approved by a variance

STRUCTURAL PRACTICES

1 Temporary Diversion Dike 3 09 and Sediment Trap 3 13

A system of temporary diversion dikes to direct flow into the sediment traps will be installed below major graded areas as indicated on sheet 12 Calculations for the sediment traps are shown on sheet 12

2 Silt Fence Barrier 3 05

Silt fence sediment barriers will be installed downslope of areas with minimal grades to filter sediment laden runoff from sheet flow as indicated on sheets 12 and 13

3 Tree Protection 3 38

A fence barrier is to be placed around the trees and vegetated areas which will not be disturbed to protect the trees and other vegetation from construction equipment and soil compaction as indicated on sheets 12 and 13

4 Temporary Construction Entrance 3 02

A temporary construction entrance with a wash rack shall be installed where the existing site entrance intersects with US Route 50 as shown on sheet 12 During muddy conditions drivers of construction vehicles will be required to wash their wheels before entering the highway

5 Storm Drainage Inlet Protection 3 07

All storm water inlets shall be protected during construction as shown on sheets 12 and 13 Sediment - laden water shall be filtered before entering the storm sewer inlets

6 Check Dam 3 20

Several rock check dams will be installed upslope of the sediment traps as shown on sheet 12 to reduce the velocity of concentrated flows which will help to increase the effectiveness of the sediment traps

VEGETATIVE PRACTICES

1 Topsoiling (Stockpile) 3 30

Top soil will be stripped from areas to be graded and stockpiled for later use Stockpile locations shall be located on site and are to be stabilized temporary vegetation

2 Temporary Seeding 3 21

All denuded areas which will be left dormant for extended periods of time shall be seeded with fast germinating temporary vegetation immediately following grading Selection of the seed mixture will depend on the time of year it is applied

3 Erosion Control Blankets 3 36 or Mulch 3 35

Erosion control blankets will be installed over fill slopes which have been brought to final grade and have been seeded to protect the slopes from rill and gully erosion and to allow seed to germinate properly Mulch (straw or fiber) will be used on relatively flat areas and will be applied as a second step in the seeding operation

4 Permanent Seeding 3 32

All areas disturbed by construction shall be stabilized with permanent seeding immediately following finish grading Seeding shall be done with Kentucky 31 Tall Fescue according to the handbook Erosion control blankets will be installed over fill slopes which have been brought to final grade and have been seeded to protect the slopes from rill and gully erosion and to allow seed to germinate properly Mulch (straw of fiber) will be used on relatively flat areas In all seeding operations seed fertilizer and lime will be applied prior to mulching

Erosion and Sedimentation Control Sequence

Phase 1

1 Install tree protection fencing as shown on sheet 12
2 Install the temporary construction entrance diversion dikes sediment traps and silt fencing as shown on sheet 12 The diversion dikes and sediment traps shall be mulched and seeded immediately following installation
3 Clear the remainder of the site and rough grade
4 All measures intended to trap sediment shall be constructed as the first step in land-disturbance

Phase 2

1 Install piped utilities (storm sanitary and water) as shown on sheets 4 Any storm sewer installed shall immediately have inlet and outlet protection installed as indicated on sheet 13
2 Final grade the site and stabilize all unimproved surfaces
3 Remove any remaining Erosion and Sedimentation Control measures as approved by the Loudoun County inspector
4 The Stormtech facility SHALL NOT be brought on line until the contributing drainage area is stabilized
5 The Sediment Trap should stay in place until the upstream drainage area is stabilized

MAINTENANCE

In general all erosion and sediment control measures will be checked daily and after each significant rainfall The following items will be checked in particular

1 The sediment trap will be checked regularly for sediment cleanout
2 The piped outlet will be checked regularly for sediment buildup which will prevent drainage
3 The silt fence barrier will be checked regularly for undermining or deterioration of the fabric Sediment shall be removed when the level of sediment deposition has reached half way to the top of the barrier
4 The seeded areas will be checked regularly to ensure that a good stand is maintained Areas should be fertilized and reseeded as needed
5 The Erosion and Sedimentation Control inspector has the authority to add or delete Erosion and Sedimentation controls as necessary in the field as site conditions change In addition no sediment trap can be removed without written authorization
6 The construction entrance shall be maintained in a good condition which will prevent tracking or flow of mud on to public right of ways
7 Temporary diversion dikes should be inspected after each storm event and every two weeks for damages to the dike flow channel or sediment trapping facility Damages caused by construction traffic or other activity must be repaired before the end of the work day

MINIMUM STANDARDS

1 See Vegetative Practices section on this sheet
2 See the Offsite Areas section on this sheet
3 See number 4 of the Vegetative Practices section
4 See Erosion and Sedimentation Control Sequence Phase 1 section number 4
5 See Erosion and Sedimentation Control Sequence Phase 1 section number 2
6 See sediment trap computations on sheet 12
7 See number 4 in the Maintenance section
8 This is not applicable This site plan does not indicate any concentrated runoff flowing down a slope
9 This is not applicable
10 See sheet 12
11 See sheet 12
12 This is not applicable There are no live water courses impacted directly by the construction limits of this project
13 This is not applicable There are no live water courses impacted directly by the construction limits of this project
14 This is not applicable There are no live water courses impacted directly by the construction limits of this project
15 This is not applicable There are no live water courses impacted directly by the construction limits of this project
16 See sheets 12 and 13 All of the utilities are within the bulk limits of disturbance of this project Therefore separate utility trenching standards will not be required
17 See sheets 12 and 13 A construction entrance is provided
18 See number 5 of the Maintenance section
19 See sheets 12 and 13

NOTE UPON APPROVAL OF THIS PLAN THE RLD WILL BECOME NULL AND VOID IT IS THE RESPONSIBILITY OF THE OWNER TO APPOINT A NEW RLD AFTER APPROVAL OF THIS SITE PLAN AND NOTIFY THE TOWN OF MIDDLEBURG TO UPDATE THE RLD INFORMATION

Bury+Partners
ENGINEERING SOLUTIONS
Consulting Engineers and Surveyors
3601 Concorde Parkway Suite 1600
Chantilly Virginia 20151
Tel 703/968-0900 Fax 703/968-4866
Bury+Partners-VA Inc

MIDDLEBURG VOLUNTEER FIRE DEPARTMENT BUILDING ADDITION
FINAL SITE PLAN
BLUE RIDGE DISTRICT
TOWN OF MIDDLEBURG, VIRGINIA

Erosion & Sedimentation Details and Narrative

NO	DATE	REVISION
1	5.2.08	REMOVED MEETING HALL
2	7.10.08	REV. AND REVIEW COMMENTS

COMMONWEALTH OF VIRGINIA
WILLIAM D HUME
No 0037880
7/14/08
PROFESSIONAL ENGINEER

SCALE	AS SHOWN
DATE	11-16-07
DRAWN BY	PJC/BP
DESIGNED BY	PJC
REVIEWED BY	MS
PROJ NO	220550002

SHEET 14 OF 18